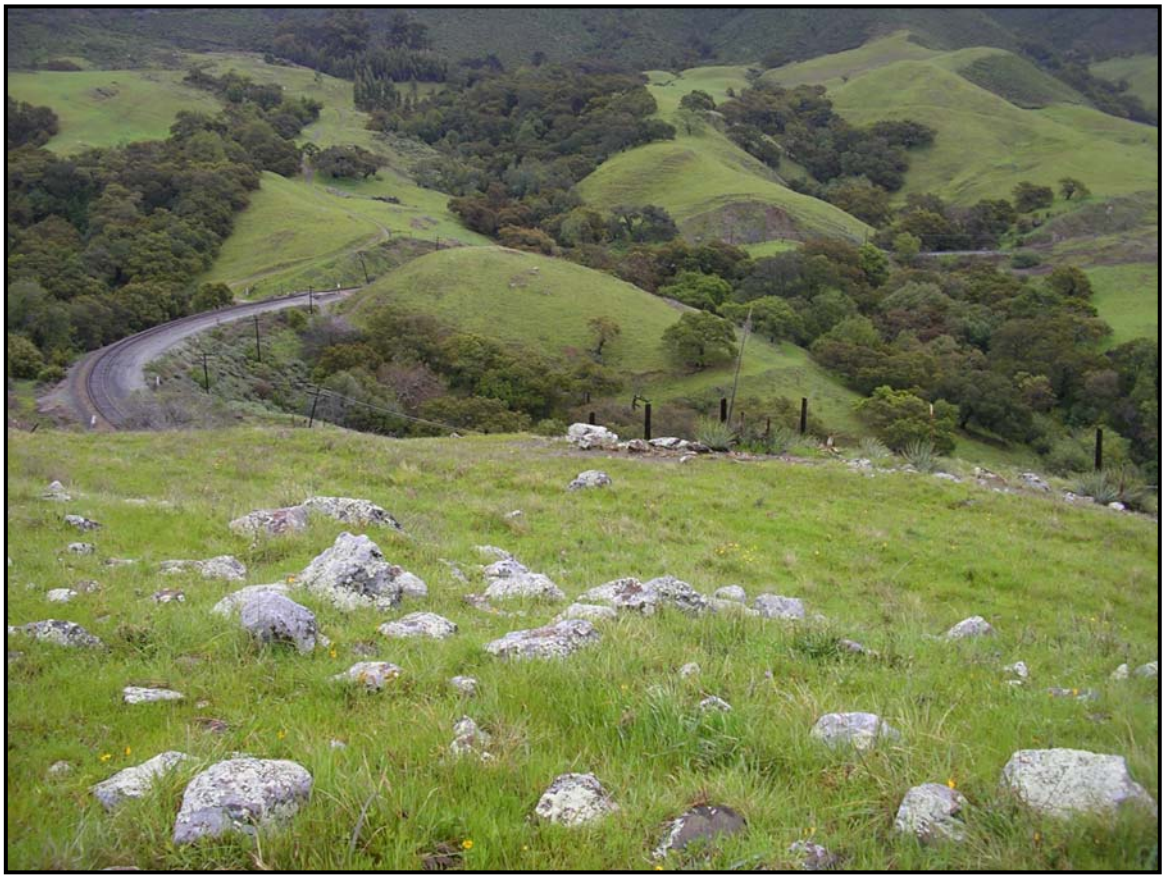
NACIMIENTO WATER PROJECT

Environmental Training Plan

March 2007



NWP NACIMIENTO WATER PROJECT

San Luis Obispo County Flood Control & Water Conservation District

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Environmental Training Plan

March 2007

Prepared for:

Environmental Programs Division
Department of Public Works
County of San Luis Obispo

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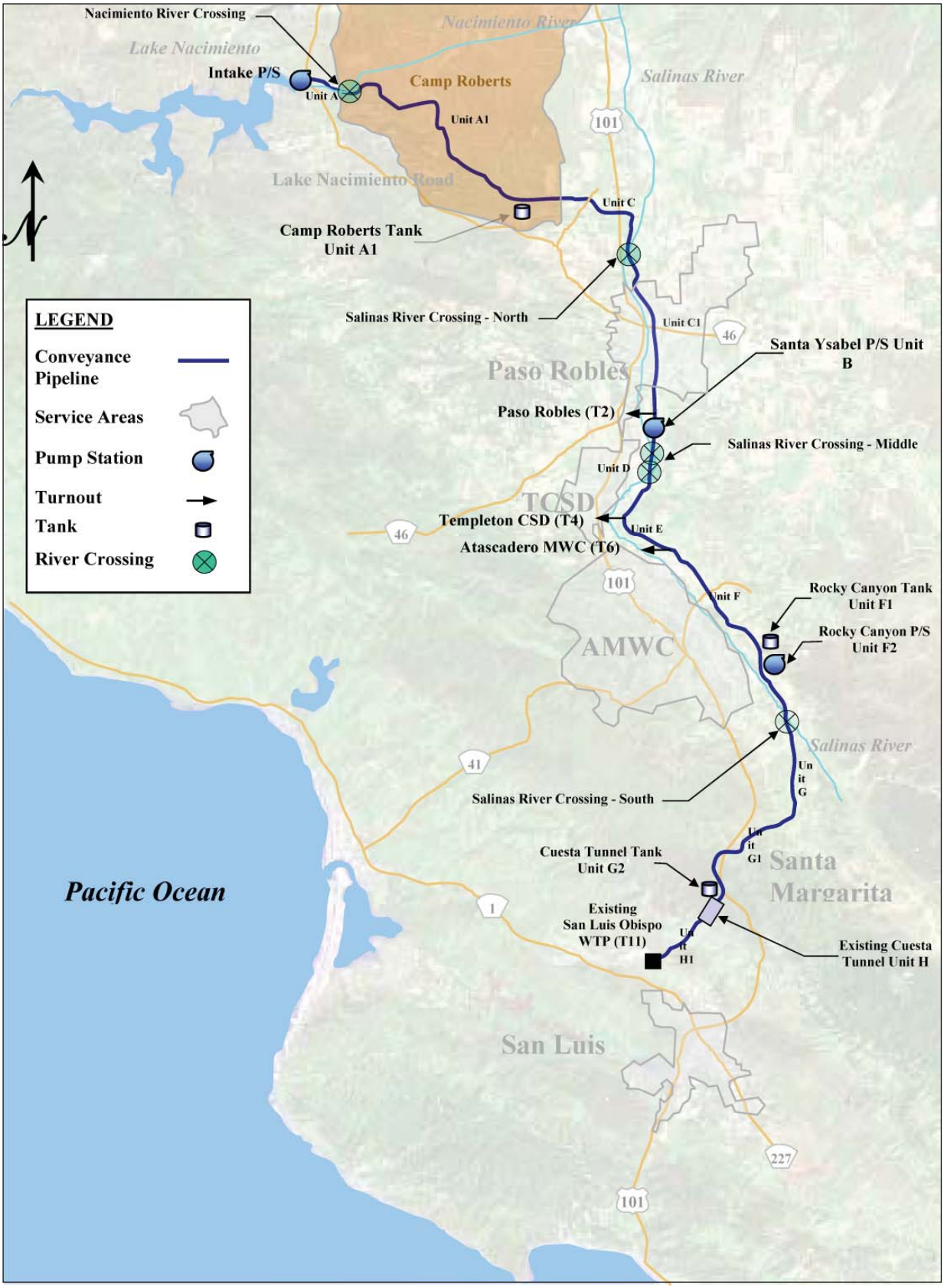
1.0 Introduction

The San Luis Obispo County Flood Control and Water Conservation District (District) is proposing to construct a 45-mile pipeline from Lake Nacimiento to San Luis Obispo (Figure 1), called the Nacimiento Water Project (NWP or Project). This Environmental Training Plan (ETP or Plan) provides guidelines for the implementation of mitigation requirements as set forth in the Project's Environmental Impact Report (EIR), Project plans, and agency permits, to ensure that all construction personnel are fully informed of the sensitive natural resources associated with the Project. Specifically, this ETP outlines the training program that will be conducted by qualified specialists and required for all construction personnel, focusing on identification of sensitive resources in the field, outlining appropriate construction practices, implementing a protocol to resolve conflicts during construction, and identifying noncompliance ramifications.

1.1 Project Summary

The Project is designed to provide a reliable supplemental water source for a variety of uses within San Luis Obispo (SLO) County by supplementing the local ground and surface water supplies with a new surface water source. The District has a 17,500 acre feet per year (afy) entitlement from Lake Nacimiento per agreement executed in 1959 with Monterey County. Of this 17,500 acre-feet (af) entitlement, 15,750 af is slated for this Project, and the remaining 1,750 af is being reserved for local lakeside use. The amount of water currently contracted is 9,655 af. This water will be transported south in a pipeline approximately 45 miles long with associated turnouts, pumping stations and other associated facilities. The NWP will be constructed within three broad physiographic regions: coastal mountains and valleys, interior mountains and valleys, and a coastal plain. Lake Nacimiento is located in the Santa Lucia coastal mountain range. Major water courses are the Nacimiento and Salinas Rivers and Santa Margarita Creek. Major drainage basins include the Lake Nacimiento Watershed and the Salinas River.



SOURCE: County of San Luis Obispo

Figure 1
Nacimiento Water Project Location

1.2 Responsible Parties

San Luis Obispo County Flood Control and Water Conservation District
Public Works Department
County Government Center, Room 207
San Luis Obispo, CA 93408
Contact: John Hollenbeck, Project Manager
jhollenbeck@co.slo.ca.us (805) 781-1288

2.0 Potential Project Impacts

The Project has the potential to impact numerous sensitive species, including the California red-legged frog (*Rana aurora draytonii*) and the San Joaquin kit fox (*Vulpes macrotis*), which are protected by state and/or federal laws. The Project area also contains sensitive habitat that could be impacted by the Project, including oak woodlands, vernal pools, rare plants, wetlands, creeks, rivers, and sensitive cultural and paleontological resources.

There is a multiplicity of specific mitigations, mitigation plans, permit provisions, District and County procedures, and of course engineering detail in an enterprise such as the NWP. The Project will have a Environmental Monitor[1] distinct from the engineering, design, and contractor entities which will organize all of these non-engineering commitments into a manageable program to be implemented in the field during construction. Part of the Environmental Monitor's assignment will be to conduct the environmental training described herein. While this Plan is constrained by the EIR to deal with natural, cultural, and paleontological resource impact mitigation, there are other components (Air Quality, Hazardous Materials, Weed Control, etc.) also under the direction of the Environmental Monitor, which may require a separate briefing for Project personnel. Other mitigations (such as flagging vegetation to be avoided) will be undertaken by the Environmental Monitor's staff and will simply be coordinated with the rest of the Project Team.

[1] For the purposes of this Plan, the Environmental Team, which includes different resource specialists and contractor and District representatives, is simply termed the "Environmental Monitor."

3.0 Training

Education of Project personnel including onsite workers reduces negative impacts to the Project's sensitive resources during construction. As part of the Project, three types of training are necessary: (1) Management/supervisor training (for client representatives, construction managers, construction inspectors, and the contractor's Project manager and superintendents), (2) environmental training of construction personnel (conducted in the field and often provided along with the contractor's health and safety weekly meeting), and (3) tailgate training prior to entering into sensitive areas (a quick refresher of Project requirements for that area).

3.1 Training Outline

All training will follow the same general outline:

I. Introduction

A. Project components and overview

B. Sensitive species (plants and animals)

C. Sensitive resources (habitats, paleontological, and cultural)

II. Project-Wide Rules

A. Regulatory permits

1) Clean Water Act (CWA) Section 404 Nationwide or Individual Permit (Army Corps of Engineers)

2) Clean Water Act Section 401, Water Quality Certification and/or Waste Discharge Requirements (Regional Water Quality Control Board [RWQCB])

3) Lake and Streambed Alteration Agreement Section 1603 (California Department of Fish and Game [CDFG])

4) Federal Endangered Species Act Section 7 (USFWS and/or NMFS)

5) California Fish and Game Code Section 2080.1 (CDFG)

6) National Historic Preservation Act Section 106

B. Construction rights-of-way (ROWs)[2], staging areas, and designated work areas

C. Stormwater Pollution Prevention Plan (SWPPP) and erosion Best Management Practices (BMPs) for water resources

D. Required surveys for special-status species

E. Exclusion BMPs for special-status species

[2] Also termed "Temporary Construction Easement" for this Project.

F. Onsite monitoring and inspection

G. ”Take” or “harassment” of special-status species

1) Definition of “take” and “harassment”

2) Penalties for a “take”

III. Common Species within the Project Area

IV. Special-status species within the Project Area

A. California red-legged frog

1) Physical description and habitat

2) Distinguishing characteristics of the red-legged frog and bullfrog

3) Protective measures

4) Status and penalties

B. San Joaquin kit fox

1) Physical description and habitat

2) Protective measures

3) Status and penalties

C. Other special-status species

1) Vernal pool fairy shrimp

2) California tiger salamander

3) Least Bell’s vireo

4) Southwestern willow flycatcher

5) Bald eagle

6) Central California coast steelhead

7) Nesting birds

8) Sensitive plants (San Luis Obispo sedge, Cuesta Pass checkerbloom, shining navarretia, straight-awned spineflower, dwarf calycadenia, prostrate navarretia, San Benito spineflower, Lemmon’s jewelflower)

V. Sensitive Habitat

A. Jurisdictional wetlands

B. Vernal pools

C. Creeks and streams (e.g., Nacimiento River, Salinas River, and Santa Margarita Creek)

D. Oak woodlands

VI. Paleontological resources

A. Vertebrate fossil characteristics

B. Obligation to protect paleontological resources

C. Paleontological resource locations in the Project Area

D. Protective measures for paleontological resources during construction activities

E. Paleontological monitoring requirements and activities

F. Procedures in the event of a paleontological discovery

G. Penalties for harming paleontological resources

VII. Cultural resources

A. Cultural resources characteristics

B. Obligation to Project cultural resources

C. Cultural resource locations in the Project Area

D. Protective measures for cultural resources during construction

E. Cultural resource monitoring requirements and activities

F. Procedures in the event of a cultural resource discovery

G. Penalties for harming cultural resources

3.2 Management and Supervisor Training

The backbone to the environmental training program's success will come from the District, its construction management team, and the upper-level contractor representatives. When the need for environmental compliance is expressed from the managerial level down to the field, personnel in the field are more likely to implement the appropriate measures and avoid sensitive resources when encountered.

The management and supervisor training is an overview of the Project's environmental requirements. A Powerpoint presentation will include a review of regulatory permits, Project-wide rules that address water quality, sensitive resources in relation to the ROW and Project Area(s), sensitive species graphics, and specific requirements to be implemented along the Project's individual segments. In addition to the Powerpoint presentation, everyone in attendance will receive species identification cards, the environmental awareness booklet, and copies of the Project's regulatory permits and pertinent plans. All personnel will sign the environmental training sheet to document their attendance. A discussion period to ask questions and discuss "what if" scenarios will be included.

3.3 Construction Personnel Training

Field training of sensitive resources and resource areas will be presented onsite by an approved resource specialist. The trainer will describe the organization of the Project's environmental team and summarize each team member's role. The training will emphasize the fundamental principle that each worker is responsible for compliance and is accountable for his or her actions. Time will be available to ask questions and discuss "what if" scenarios.

Training typically takes 30 minutes or less, and workers receive species cards with a name(s) and emergency Environmental Monitor contact telephone number(s), Project sticker(s), and the environmental awareness booklet. All personnel will sign the environmental training sheet to document their attendance. This training typically occurs at the beginning of the work week along with the contractor's health and safety weekly meeting, and as new crew members come onto the Project. If training cannot occur for a new worker's first morning, that person must be supervised by an environmentally-trained construction worker until the training can be provided by the onsite environmental staff. It will be the onsite foreman or superintendent's responsibility to ensure that all construction personnel and subcontractors receive this training.

3.4 Tailgate Refreshers

As a part of their daily field responsibilities, the onsite Environmental Monitor will coordinate with construction personnel to hold tailgate meetings on key environmental issues relevant to particular work crews, or sensitive locations. These tailgates remind the construction personnel of the immediate area's sensitivity (such as cultural resource areas, stream crossings, etc.), and the Project's rules while working in the area. Circumstances that might require tailgate training include:

- Activities in known sensitive resource areas (e.g., adjacent to an active nest buffer zone).
- Repeated or uncorrected non-compliance events (e.g., activity outside of the work area).
- Discovery of a previously unknown sensitive resource that requires special protection measures.

4.0 Training Materials

In order to ensure that all construction personnel are fully informed of resource sensitivities in the Project area, the District will provide training materials, including any required permits (managers and supervisors only), an environmental awareness booklet, training logs, species identification cards, helmet stickers, and powerpoint presentation.

4.1 Required Permits

Prior to the first training session, the District, client representatives, construction management team, and the contractor will be provided copies of: (1) the Regional Water Quality Control Board (RWQCB) 401 Water Quality Certification; (2) United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Biological Opinions; (3) United States Army Corps of Engineers' (ACOE) Nationwide Permit; (4) the Mitigation, Monitoring, and Compensation Plan (MMCP); and (5) the Environmental Impact Report (EIR) biological, cultural, and air quality mitigation measures. The regulatory permits and the Stormwater Pollution Prevention Plan (prepared by the contractor) are required to be onsite in the contractor or District representative's possession.

4.2 Worker Environmental Awareness Booklet

Once the permits have been transmitted, a Worker Environmental Awareness Booklet will be created. This booklet will include an overview of all the Project's environmental requirements from the EIR, MMCP, SWPPP, regulatory permits, etc., essentially an abstract of information included in this Plan. It will also include general Project rules (which will apply to the entire Project), and information on whom to contact for further information. The Booklet requires each worker to sign the inside cover and keep it onsite as proof of attendance at the environmental training.

4.2.1 Project Rules

Project-wide rules will be developed once the regulatory permits have been received by the District. These rules will include, but are not limited to the following:

a) Driving and staging materials or equipment will be prohibited outside of designated corridors and approved access roads. The Environmental Monitor shall be contacted if there are any questions related to approved work areas, staging locations, access roads, and restricted buffer or exclusion areas located within the Project area.

b) Food trash including wrappers, cans, bottles, and especially food scraps of all kinds will be disposed of in closed containers and removed daily from the Project site. Food trash attracts predators to the work site and may endanger the sensitive species that inhabit the area.

c) No pets or firearms (excluding security personnel) will be allowed in the Project Area.

d) All excavated holes or trenches greater than two feet will be covered at the end of the work day. Escape ramps (wooden planks or earthen ramps) will be provided to allow trapped wildlife to escape. Before backfilling any hole, trench, or excavation, the area will be inspected thoroughly for trapped animals.

e) The Environmental Monitor will be present at the active work sites (or, at a minimum, on-call for each site) until such time that the habitat disturbance, major construction activities, and site restoration is completed.

f) Preconstruction species surveys will occur no more than 14 days (or less, depending on the species' survey protocol requirements) before entering a new area. The Environmental Monitor will be contacted if there is uncertainty as to whether an area has been surveyed, prior to the initiation of construction.

g) Exclusion (silt) fencing will be installed in areas such as: (1) at vernal pools; (2) oak trees immediately adjacent to construction activities; (3) around known or potential kit fox dens; (4) around potentially around sensitive paleontological and cultural resources; (5) along the toe of exterior slopes as described in the SWPPP, to prevent storm water runoff; and (6) around stockpiles, to prevent wind dispersal of sediment. Fencing will be maintained in good condition with gaps, tears, and undermining by mammals repaired regularly. The use of exclusion fencing will aid the Project's ability to protect the adjacent sensitive species and resources.

h) Throughout most of the Project area, staging, fueling, and maintenance of vehicles and equipment will be at least 25 feet from any riparian area, water body, wetland, seasonal wetland, drainage, or swale. However, the following areas require additional buffer areas, as protective measures for special-status species: (1) To minimize the potential for impacts to red-legged frogs, all fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 65 feet from riparian habitat or water bodies at Yerba Buena Creek and Santa Margarita Creek (ESA, 2006b). (2) To minimize the potential for impacts to California tiger salamanders, all fueling and maintenance of vehicles and other equipment, and staging areas, shall occur at least 65 feet from the irrigation pond and Stenner Creek (ESA, 2006b). (3) To minimize the potential for impacts to steelhead, all equipment and materials will be stored at least 50 feet from San Marcos Creek. No debris such as trash and spoils will be deposited within 100 feet of wetlands in these steelhead areas.

i) To prevent impacts to water quality (or sensitive species and resources), workers will follow the requirements set forth in the Project's SWPPP. A copy of the SWPPP must be onsite during construction activities. Leaks and spills must be reported immediately to the Environmental Monitor who will document the occurrence and offer guidance for clean-up methods.

j) Only a qualified Monitor may approach, handle, or relocated any sensitive wildlife or fish species. Without appropriate authorization, it is illegal to approach, handle, or relocate

federal or state listed species. The Environmental Monitor will be immediately notified of any wildlife or sensitive species located in the work site.

k) The Project's permits (issued by the COE, USFWS, NMFS, CDFG, RWQCB, etc.) must be onsite with construction personnel including the ENGINEER[3]. The Environmental Monitor will retain a separate copy of the permits.

4.2.2 Common Wildlife

No wildlife species shall be harmed or intentionally killed in the Project area. No species will be collected or removed from the work site. Construction activity can affect wildlife in general and listed species in particular by driving too fast, off-road driving, or driving outside of designated work areas. Workers shall be mindful of their surroundings, and the potential impact of their actions.

Rodenticides and herbicides shall be limited to those that will not result in the primary or secondary poisoning of listed species or the depletion of the prey populations on which they depend.

4.2.3 California Red-legged Frog

The environmental training for all Project-related personnel will be developed once the Project permits have been received. At a minimum, the training shall include a description and importance of the California red-legged frog (CRLF) and its habitat, the general measures that are being implemented to conserve the CRLF as they relate to the Project, and the boundaries within which the Project may be accomplished with the least impact to these frogs.

Physical description and habitat

The CRLF is the largest native frog in the western United States, ranging from 1.5 to 5.1 inches in length. The abdomen and hind legs are typically red, but not always. This frog may be brown, olive, or reddish in color, but always has bold dark blotches and smaller black flecks across its body.

CRLF and bullfrogs can be similar in size and coloring, but a few diagnostic features can be used to distinguish the two species. California red-legged frogs have a prominent "dorsolateral fold" line on each side of its back and they have a conspicuous cream-colored upper lip often described as a "white milk moustache." Bullfrogs have neither. Bullfrogs have large, noticeable tympanums located behind their eyes, their snouts are typically bright green, and their lower jaw is a light cream. Finally, red-legged frogs generally do not croak or otherwise broadcast its presence, as bullfrogs do.

CRLF occur in a variety of aquatic and upland habitats including but not limited to roadside drainages, seasonal wetlands, drainage ditches, ponds, streams, grasslands, and woodlands. They are active all day and night, but are most easily seen at dusk or after dawn.

[3] "ENGINEER" is the designated the Construction Manager (Jacobs Engineering).

California red-legged frog locations in the Project area
There is California red-legged frog habitat at Yerba Buena Creek and Santa Margarita Creek.

Protective measures during construction activities at Yerba Buena Creek and Santa Margarita Creek will include but are not limited to:

a) The Environmental Monitor must be onsite to supervise all ground-disturbing construction activities including grading, excavation, and site restoration.

b) Construction workers shall not approach, attempt to move, or harm CRLF found onsite. If an injured or dead frog is discovered, work will stop and the Environmental Monitor must be contacted immediately. The Environmental Monitor is required to contact the US Fish and Wildlife Service.

c) Construction workers shall not enter into buffer or exclusion zones. If a construction worker needs to enter an excluded area, they will contact the Environmental Monitor. Workers will stay within designated work areas and on approved access roads. They will not remove flagging, fencing, or signs that mark buffer or exclusion areas.

d) Construction workers and Environmental Monitors shall check for frogs under equipment every morning. California red-legged frogs may seek shelter under equipment or in construction materials, especially pipes.

e) Workers shall cover all excavated trenches or holes more than two feet deep at the end of each day, or an escape route will be provided using materials such as planks or earthen fill.

f) Under the direction of the ENGINEER, work that may result in the take of this species will be stopped. The US Fish and Wildlife Service will be contacted within one working day if this authority is used.

g) Work activities in or adjacent to areas that provide aquatic breeding habitat for red-legged frog will be restricted to the work period of April 1st to November 1st of each year.

h) Plastic mono-filament erosion matting will not be used due to the potential for the California red-legged frog to become entangled or entrapped in it. Coconut coir matting or tackified hydroseeding compounds may be used in its place.

i) During work activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

j) All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 65 feet from site riparian habitat or water bodies, while within areas of known CRLF locations. The Environmental Monitor shall ensure that contamination of

habitat does not occur during such operations. Prior to the onset of work, the District shall have a plan to allow a prompt and effective response to any accidental spills.

Status and penalties for harming California red-legged frogs
The California red-legged frog is a federally Threatened species and a California Species of Special Concern. It is illegal to disturb or destroy state and/or federally protected species. Violators are typically held individually responsible for their actions. Penalties include up to $10,000 in fines and/or one year in jail.

4.2.4 San Joaquin Kit Fox

The environmental training for all Project-related personnel will be developed once the Project permits have been received. At a minimum, the training will consist of a brief presentation by a person knowledgeable in kit fox biology and legislative protection, and include the following: a description of the San Joaquin kit fox (SJKF) and its habitat needs; the occurrence of kit fox in the Project corridor; status of the species and its protection under the federal and state Endangered Species Act; legal penalties for violating the provisions of the federal Endangered Species Act; and measures being taken to reduce impacts to the species during the Project .

Physical description and habitat
The SJKF is a small, cat-sized fox with large ears which are dark on the back, narrow nose, longish legs, and a bushy, black-tipped tail which often extends almost horizontally from its body. It is approximately 25% smaller than the common gray fox. The fox is light bellied but otherwise almost uniformly pale gray in winter and tan in summer.

SJKF inhabit grasslands and other sparsely vegetated, shrubby habitats which allow easy mobility and good visibility of ground-dwelling prey species. The foxes are also known to live in and adjacent to some agricultural lands and urban areas. A nocturnal hunter, the kit fox preys on rabbits, insects, mice, voles, and birds.

The availability of suitable underground dens is a crucial habitat requirement for San Joaquin kit foxes. They need dens throughout the year for shelter and to escape predators. During a single year a mated fox pair may use 30 dens scattered over hundreds of acres. They also often uses human-made structures such as culverts, pipes, open pits, and cardboard boxes that are at least four-inches in diameter, but small enough to prevent coyote predation. They are highly inquisitive animals that are often attracted to construction sites by litter and ground disturbances.

Kit fox mate between December and January. They have a gestation period of about fifty days. Although a female kit fox may give birth to four or five young in a litter each weighing around 1.4 ounces, no more than five percent live to sexual maturity. While the mother is nursing the young kits, she rarely leaves the den and depends on her mate to bring her food. This species is considered to be monogamous and to mate for life. Kit fox pups first venture outside the den when they are about four weeks old. They begin hunting with their parents by the age of four months. Like other species of fox, the young foxes leave to seek out new territories in the fall.

Kit foxes are nocturnal and active year-round, so they may be present in the Project area but are not been seen during daylight hours.

San Joaquin kit fox locations in the ProjectArea
There is potential kit fox habitat northeast of the NWP alignment, between Station 240+00 and 650+00, which includes a portion of Camp Roberts and areas to the east; and between Station 1183+00 and 1299+99.

Status and penalties for harming San Joaquin kit fox
Listed in 1967 as a Federally Endangered species, the SJKF is protected under the Endangered Species Act. It is against the law to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" San Joaquin kit foxes. Frightening, harassing, or pursuing a San Joaquin kit fox is a federal offense. Anyone attempting to engage in such behavior is subject to criminal and/or civil penalties up to a $10,000 fine and/or one year in jail.

Protective measures during construction activities in potential kit fox habitat (described above) include, but are not limited to, the following:

a) Construction workers shall not attempt to approach, move, or harm foxes or their dens. If a kit fox is observed in the work areas, workers will immediately contact the Environmental Monitor.

b) Construction workers shall not enter into buffer or exclusion zones. If a construction worker needs to enter an excluded area, they will contact the Environmental Monitor.

c) If an injured or dead kit fox is discovered, the onsite Monitor will be notified immediately. The Environmental Monitor is required to contact the US Fish and Wildlife Service.

d) All pipes, culverts, or similar structures that are 4-inches or greater in diameter shall be checked for kit foxes before being buried, capped, or moved.

e) Workers shall stay in designated work areas and on approved access roads.

f) While in the Project area, workers will not exceed the Project speed limit of 20 mph on private roads in kit fox habitat, and they will observe posted speed limit signs within Camp Roberts.

g) Excavated holes or trenches greater than two feet deep must be covered at the end of the day and supplied with escape ramps (wood planks or earthen ramp). Before such holes are filled they shall be thoroughly inspected for trapped animals.

h) Kit fox dens and buffer areas will be marked using lath and red flagging. Construction workers shall not remove flagging, fencing, or signs that mark buffer or exclusion areas.

i) Under the direction of the ENGINEER, work that may result in the take of this species will be stopped. The US Fish and Wildlife Service will be contacted within one working day if this authority is used.

j) All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed daily from the Project site.

k) Off-road vehicle traffic outside the designated NWP Project corridor is prohibited in areas that provide kit fox habitat.

l) To prevent harassment, mortality of kit foxes, or destruction of dens, no pets shall be allowed on the Project site.

m) Construction activities shall stop at dusk at SJKF locations listed above.

4.2.5 Jurisdictional Wetlands, Water Bodies, and Vernal Pools

Throughout the Project area, there are numerous seasonal drainages, creeks, permanent wetlands (wetlands that retain water or saturated soils year-round), seasonal wetlands (areas that dry out in the warmer months but that retain ponded water during several months of the year), and swales. All of these areas are protected by state and federal environmental regulations, to ensure water quality and provide protection to the sensitive species that may use these areas for breeding or habitation.

Protective measures during construction activities include but are not limited to:

a) Construction activities within and/or immediately adjacent to all creek crossings, wetlands, shall be limited to a 15- to 30-foot corridor. Specific sites for this limitation will include pipeline crossings at Salinas and Nacimiento Rivers and San Marcos, Santa Margarita, Tassajara, Trout, Yerba Buena, and Chorro Creeks. Other creek crossings may be included as determined by the Environmental Monitor.

b) Equipment access and construction shall be conducted from the banks rather than from within the drainage to the extent feasible.

c) No staging areas, disposal, or temporary placement of excess fill shall be placed in drainages or other wetland areas.

d) “No fueling” zones, where fueling of vehicles or equipment is prohibited, shall be designated within 25 feet of all drainages, unless otherwise indicated by the Environmental Monitor.

e) Exclusion fencing shall be in place around all sensitive wetlands, water bodies, and vernal pools, prior to the start of construction activities.

f) Erosion control BMPs shall be practiced.

g) Proper storage of hazardous materials including fuel, oil, concrete, and the staging of equipment and materials shall occur at least 25 feet away from sensitive wetlands, unless otherwise indicated by the Environmental Monitor.

h) Emergency provisions shall be in place at all drainage crossings prior to the onset of construction to deal with accidental spills of hazardous materials. Leaking equipment and spills should be immediately addressed and appropriately cleaned up to prevent runoff into aquatic habitats.

i) All dewatering activities must be authorized. Unauthorized dewatering and poor erosion control measures can result in sediment deposits into these jurisdictional features, which reduces water quality and can smother the eggs of aquatic species.

A number of measures that were developed to minimize the potential for impacts to steelhead resulting from pipeline construction, will also minimize impacts to jurisdictional water bodies. The following measures shall be employed during construction at the Nacimiento River, the three Salinas River locations, the two Santa Margarita Creek locations, and Yerba Buena Creek:

j) All trenching activities across waterways will be restricted to low-flow periods of June 15 through November 1. If the channel is dry, construction can occur as early as June 1.

k) If the channel is not dry, water from around the section of trench that is within the actively flowing channels will be diverted. This will reduce the potential for sediment or other pollutants to enter the waterways and to impact downstream resources. The diversions will consist of sheet pile cofferdams installed in two phases. Each phase will result in the dewatering of approximately two-thirds the width of the channel, thus allowing for continued fish passage during construction.

l) Sediment curtains will be placed downstream of the construction zone to prevent sediment disturbed during trenching activities from being transported and deposited outside of the construction zone.

m) Spoil sites will be located so they do not drain directly into the waterways. If a spoil site drains into a water body, catch basins will be constructed to intercept sediment before it reaches the channels. Spoil sites will be graded to reduce the potential for erosion.

n) A spill prevention plan for potentially hazardous materials will be prepared and implemented. The plan will include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek channels.

o) No debris such as trash and spoils will be deposited within 100 feet of wetlands. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, will be located outside of the stream channel and banks. Stationary equipment such as motors, pumps,

generators, compressors and welders, located within or adjacent to the stream will be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream will be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles will be moved away from the stream prior to refueling and lubrication.

p) Proper and timely maintenance for vehicles and equipment used during construction will be provided to reduce the potential for mechanical breakdowns leading to a spill of materials into or around the creeks. Maintenance and fueling will be conducted in an area that meets the criteria set forth in the spill prevention plan (i.e., away from the creeks).

4.2.6 Oak Woodlands

Approximately 1,700 mature valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), and coast live oak (*Quercus agrifolia*) have the potential to be impacted by the Project. These oaks are distributed throughout the Project area.

Valley oak woodlands
This habitat is primarily encountered on deep, well-drained alluvial soils on valley bottoms and on non-alluvial soils within the coastal range. Valley oak woodlands often act as a transition between valley oak riparian forest and valley oak savanna. Individual trees may reach over 100 feet high. Valley oak woodland mixes with valley oak riparian forest near rivers and with blue oak woodland in drier locations.

Blue oak woodlands
Blue oak woodlands are typically associated with shallow rocky, infertile, well-drained soils. They are well adapted to dry, hilly terrain where the water table is unavailable. Blue oak woodlands can exist within valley oak woodlands, but generally occur in drier areas on northern slopes. Blue oaks have a high drought tolerance and compete very successfully with other tree species in drier locations. This habitat varies from open savanna to dense woodland and is typically found in the valleys and foothills of the coastal ranges.

Coast live oak woodland
These woodlands are highly variable and comprise slow growing, long lived trees. They generally occur in moderate to well-drained soils that have low to medium fertility. On steep slopes, coastal live oaks establish themselves in small woodland patches. The understory can vary from annual grasslands to dense shrubs.

Protective measures during construction activities (also see Oak Tree Mitigation and Monitoring Plan)

a) The construction corridor shall be narrowed where possible from 100 feet to a maximum of 30 feet to avoid individual oak trees and oak woodland stands.

b) Sensitive zones shall be protected by temporary fencing and individuals flagged prior to the start of construction activities.

c) All oaks within the corridor that shall be avoided, trimmed, or removed, will be identified using colored flagging and a sequential numbering system, prior to the start of construction activities.

d) Construction access roads, ROW access points, and equipment or material staging areas shall be located away from oak woodlands and shall avoid individual oak trees, as feasible.

e) Equipment, fill, excavated soil, and materials will not be staged under the oak tree's dripline.

f) The relocation or removal of dead or downed logs will be avoided to the extent possible during ROW clearing and site preparation.

g) Any necessary oak tree trimming shall be conducted by a certified arborist, and must conform to the standards set forth by the International Society of Agriculture. Pruning shall be carried out in such a manner as to maintain a natural-looking tree form upon completion of pruning; practices such as stub cuts, topping, flush cuts, and random branch removal shall be avoided.

h) Mechanical digging and blade or grading work under the driplines of standing live or dead oak trees shall be avoided when possible.

i) Strict precautionary measures shall be taken to avoid the spread of Sudden Oak Death (e.g., inspecting vehicles leaving the site for host plant debris, and power washing stations for trucks).

j) No fasteners shall be used on the trees.

k) All removal of oak trees shall be recorded.

4.2.7 Paleontological Resources

As part of the Project's environmental training, information including vertebrate fossils identification, the Project's obligation to protect paleontological resources of during construction activities, and the legal consequences of looting, disturbing, destroying these resources or violating approved mitigation measures will be provided. Protective measures, treatment methods, and locations of paleontological resources are identified in the Project's *Paleontological Resources Monitoring Plan*.

Obligation to protect paleontological resources

Paleontological resources are significant and nonrenewable, and must be considered under state and federal laws including the California Environmental Quality Act (CEQA), the California Public Resources Code, the National Environmental Protection Act (NEPA), the federal Antiquities Act of 1906, the National Natural Landmarks Program, and the federal Paleontological Resources Preservation Act.

Protective measures for paleontological resources during construction activitie
All sensitive geological formations and paleontology resources requiring monitoring within each pipeline reach shall be clearly delineated and fenced off.

Paleontological monitoring requirements and activities
Monitoring shall be required for all surface alteration and subsurface excavation work including trenching, boring, grading, use of staging areas and access roads, and driving vehicles and equipment within the boundaries of all exposed sensitive geological formations (MRS, 2003). See the Project's *Paleontological Resources Monitoring Plan* for information regarding required monitoring locations, and discovery procedures.

Monitoring shall include inspection of exposed rock units and microscopic examination of matrix to determine if fossils are present, preparation of monthly progress reports and filed with the applicant, the Lead Agency, and the appropriate jurisdiction. The Environmental Monitor shall have the authority to temporarily divert grading and construction equipment away from exposed fossils to recover the fossil specimens if fossils or other resources are encountered (MRS, 2003).

Procedures in the event of discovery of paleontological resources

a) Fossils shall be collected, prepared, tested, or identified by qualified experts, and listed in a database to allow analysis.

b) At each fossil locality, field data forms shall record the locality, stratigraphic columns shall be measured when possible, and appropriate scientific samples submitted for analysis.

c) A qualified paleontologist shall recommend one or more accredited repositories for collected fossils depending on the abundance and origin of those fossils.

d) The Environmental Monitor shall divert grading and construction equipment away from exposed fossils to recover the fossil specimens if fossils or other resources are encountered.

e) In the event fossils are discovered by the Environmental Monitor during construction, the professional paleontologist (or their representative) shall ensure that fossils are collected, prepared, tested or identified by qualified experts, and listed in a database to allow analysis.

Penalties for harming paleontological resources
According to the federal Vertebrate Paleontological Resources Protection Act, in general, a person who knowingly violates, or employs any other person to harm paleontological resources can be fined up to $10,000, imprisoned up to one year, or both. If the cost of the paleontological resource and the cost of recovery, restoration, and repair of the resource exceeds $500, the person could be fined up to $20,000, imprisoned for up to two years, or both.

4.2.8 Cultural Resources

As part of the Project's environmental training, information including cultural resource identification, protection, and required monitoring will be provided. This training will include a description of what cultural resources are, why archaeological and Native American monitoring is required, required monitoring activities and locations, consequences of violating monitoring requirements, and the action plan to be implemented in the event of a discovery.

Cultural resource characteristics
The state has defined cultural resources as buildings, sites, structures, objects (historical or prehistoric artifacts) or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance.

Obligation to protect cultural resources
Cultural resources are protected under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA) (40 CFR 1500-1508), and Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800). On federal lands, archaeological resources are protected by the Archaeological Resources Protection Act of 1979 (43 CFR 7).

Cultural resource locations in the Project Area
The original cultural resources inventory conducted for the Nacimiento Water Project identified 50 cultural resource sites along the alignment and a 200-foot buffer (Gibson and Parsons 2003; 1996). Of these, 23 are prehistoric sites, 14 are historic resources, 1 has both prehistoric and historic components, 2 are modern, and 11 are considered to be isolated finds or isolates. Most prehistoric cultural sites identified were located in three general areas, the Camp Roberts/Nacimiento River area, the Paso Robles Santa Ysabel Ranch area, and the Santa Margarita Ranch area.

Protective measures for cultural resources during construction activities

a) Excavation, staging equipment, machinery, and vehicles shall be excluded from undisturbed or exposed portions of cultural resources.

b) Collection, removal, or unnecessary displacement of any artifacts, "eco-facts[4]," or other cultural remains shall be prohibited.

c) Stockpiling of imported soils within the sensitive work area shall be prohibited.

d) Removal of native soils outside of sensitive area shall be prohibited.

e) Chemical/fuel spills shall be contained and collected immediately.

Cultural resource monitoring requirements and activities
The avoidance of cultural resources, when feasible, takes precedence over other possible mitigation strategies. In an effort to maintain a "preservation in place" strategy throughout Project construction, the pipeline has been re-designed to avoid significant clusters and individual sites along the course of the alignment. However, a number of areas where large numbers of sites are

[4] Any flora or fauna material found at an archaeological site, such as a shell carried from the ocean to an inland settlement. Seeds, pollen, animal bone, insects, fish bones, and mollusks are all ecofacts.

clustered around the Project alignment, such as on Camp Roberts and along the El Camino Real section of Santa Margarita, as well as sites with individual significant archaeological sites, are zones where monitoring is recommended. In addition, some areas have been designated as sensitive for subsurface cultural resources based on sediments and proximity to watercourses by the EIR, and thus are also designated as monitoring areas (MRS, 2003). See the Project's Cultural Resources Monitoring Plan for information regarding required archaeological monitoring locations, protective measures, and discovery procedures.

The primary duty of the onsite archaeologist is to protect any identified significant archaeological remains during the monitoring of construction activities. Onsite monitoring will be required at locations specified, and will include all ground-disturbing activities, inspection of excavation spoils and visible trench profiles for the presence of intact archaeological remains or deposits. Samples of excavated soil will be passed through archaeological screens and examined for the presence of artifacts and archaeological remains. The responsibility of the Environmental Monitor includes inspecting, documenting, and describing any cultural materials identified during construction. The Environmental Monitor is responsible for maintaining a daily log of construction and monitoring activity at each location monitored. The Environmental Monitor is responsible for communicating with construction personnel as well as implementing the discovery communication plan if potentially significant cultural resources are identified. They shall temporarily halt construction activities if it is likely that those activities have the potential to disturb significant or potentially significant archaeological remains, and shall implement the discovery communication.

Procedures in the event of discovery

a) Artifacts or cultural material discovered in fill material or in highly disturbed matrix will be noted and described, but will not be collected unless it is determined that it is associated with human remains. Artifacts that are determined to be associated with human remains will be collected.

b) In the event that unknown archaeological resources are discovered, construction activities shall cease within 100 feet of the find, so that the extent and location of discovered materials may be recorded by a qualified archaeologist and disposition of artifacts may be accomplished in accordance with state and federal law. The Environmental Monitor shall be responsible to notify the local jurisdiction.

c) In the event archaeological resources are found to include human remains, or in any other case when human remains are discovered during construction, work within 100 feet of the human bone shall stop immediately. The Environmental Monitor will be notified, in addition to the County or City Coroner and any other appropriate jurisdictions, so that proper disposition may be accomplished. If the human bone is determined by the Coroner to be of Native American origin, the Native American Heritage Commission (NAHC) will be notified.

Penalties for harming cultural resources

Under the following language codified in the California Public Resources Code, the removal or destruction of cultural resources is considered a misdemeanor.

- Title 14, Public Resources Code, Section 5097.5 – any unauthorized removal or destruction of archaeological, paleontological resources on sites located on public lands is a misdemeanor.

- Title 14, Public Resources Code, Section 5097.98 – prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn; sets penalties.

- Public Resources Code, Section 5097.5. Any unauthorized removal of archaeological resources on sites located on public lands is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority or public corporation, or any agency thereof.

On federal lands (Camp Roberts), under Section 6 of the Archaeological Resources Protection Act (ARPA), criminal penalties can be imposed for the vandalism, alteration, or destruction of historic and prehistoric sites on Federal and Indian lands, as well as for the sale, purchase, exchange, transport, or receipt of any archeological resource if that resource was excavated or removed from public lands or Indian lands or in violation of state or local law. The penalties include up to $250,000 in fines and up to five years imprisonment. In addition, ARPA provides civil penalties for the acts prohibited under Section 6, as well as for violations of ARPA permits. The penalties include the forfeiture of property used for illegal site disturbances or destruction and forfeiture of illegally obtained artifacts.

4.3 Species cards

Species cards are wallet-size identification cards with an image of each sensitive species potentially present in the Project area, what to do and who to contact if one is found, and the penalties that could result from taking or harassing them (Figure 2). Each worker will receive these species cards during the training.

4.4 Project environmental training stickers

Environmental training stickers are small stickers that workers can display on their hard hat or other visible place, as proof of environmental training (Figure 3). All Project-related personnel who receive the environmental education training will receive a training sticker for the individual Project segment(s).

4.5 Training log

A training log is a record signed by all personnel after they have received the environmental training (Figure 4).

4.6 Environmental monitoring during NWP implementation

Environmental Monitors will be a separate entity on the Project. They function as facilitators and record-keepers. They also have the authority, if so delegated by the Project Manager, to halt construction operations that may result in the loss, for example, of a potential kit fox den or other protected resource. Environmental Monitors are responsible for instructing the Construction Foremen and construction crews about compliance with mitigation measures (such instruction does not constitute direction about actual construction techniques). Environmental Monitors will respond to requests for advice about mitigation and offer suggestions about improving implementation of mitigation measures.

Environmental Monitors are responsible for monitoring resources to be avoided during construction, as well as performing surveys to identify those resources when necessary. Enviromental Monitors are also, of course, the individuals who will conduct the training described in this ETP. Monitors will also participate in the administration of the environmental training sessions to construction personnel.

Environmental Monitors report daily to their supervisor, to the District and to the ENGINEER (and in some cases to the regulatory agencies). In most cases, these reports document compliance with protective and avoidance measures and mitigations. When this is not satisfactory a *Compliance Advisory* is made part of the daily report. When a violation occurs, this is submitted under a special protocol to make sure the NWP Project Manager and the ENGINEER is aware of the situation and can consult with the Environmental Monitor and other staff to determine the appropriate course of action. These procedures will be described in greater detail, and be made part of the Environmental Training, before the program has its first training session.

Figure 2. Species Cards

Figure 3. Project stickers

Environmental Training Sign-In Sheet

I have attended environmental training for San Luis Obispo's Nacimiento Water Project, and understand and agree to comply with all the environmental requirements presented. I understand that I am accountable for my actions.

Date	Name (Print)	Signature and Sticker Number	Company

Nacimiento Water Project 204453

Source: ESA, 2007

Figure 4
Environmental Training Sign-In Sheet

5.0 Authors and References

5.1 Report Authors

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Report Preparation: Dana Ostfeld, Jennifer Garrison, and Dean Martorana

5.2 References

Environmental Science Associates (ESA). 2006a. Nacimiento Water Project Mitigation, Monitoring and Compensation Plan. *Prepared for*: Environmental Programs Division, Department of Public Works, County of San Luis Obispo.

ESA. 2006b. Nacimiento Water Project Biological Assessment. *Prepared for*: Environmental Programs Division, Department of Public Works, County of San Luis Obispo.

ESA. 2006c. Nacimiento Water Project Draft Biological Assessment – Fisheries. *Prepared for*: Environmental Programs Division, Department of Public Works, County of San Luis Obispo.

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6.0 Mitigation Measures

6.1 Mitigation Measure BR-2 of the Nacimiento Water Project EIR (MRS, 2003)

A Biology Education Program for Contractors shall be implemented to ensure that all construction personnel are fully informed of the biological sensitivities associated with this Project. The program shall be conducted by a qualified biologist and shall be a requirement for all construction personnel. This program shall focus on:

a) the purposes for resource protection;

b) identification of sensitive resources areas in the field (e.g., areas delineated on plans and by flags or fencing);

c) sensitive construction practices;

d) protocol to resolve conflicts that may arise during the construction process;

e) ramifications of noncompliance.